

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently amended) A method of data object transformation, the method including:

receiving a message from a communications line, the message including one or more data objects of a first object type, wherein the message is in a first communications format;

converting the message from the first communications format to a second communications format;

converting the one or more data objects from the first object type to a second object type, wherein the one or more data objects are converted using a first set of one or more transformation classes, each of the one or more transformation classes generated using mapping rules; and

transmitting the converted one or more second object type data objects to an application.

2. (Original) A method according to claim 1, wherein the communications line is messaging middleware, and the first communications format is a middleware-dependent format, and the second communications format is a middleware-independent format.

3. (Original) A method according to claim 1, wherein each of the one or more data objects is a Java object.

4. (Original) A method according to claim 1, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

5. (Original) A method according to claim 1, further including:
registering the application with the communications line; and
transmitting high-level function calls to the application.
6. (Currently amended) A method according to claim 1, the method further including:
receiving a second message from the application, the second message including one or more data objects of the second object type;
converting the one or more data objects from the second object type to the first object type, wherein the one or more data objects are converted using a second set of one or more of the transformation classes;
generating a communications line dependent message, the communications line dependent message including the converted one or more first object type data objects;
and
transmitting the communications line dependent message to the communications line.
7. (Canceled)
8. (Canceled)
9. (Canceled)
10. (Canceled)
11. (Original) A method of data object transformation, the method including:
generating a first object model and a second object model, the first object model including a plurality of data objects of a first object type, and the second object model including a plurality of data objects of a second object type;

storing the first and second object models in one or more memories;
generating transformation mapping rules;
generating a plurality of transformation classes using the first and second object models and the transformation mapping rules;
receiving one or more data objects;
converting the received one or more data objects, using the transformation classes, from (1) the first object type to the second object type; or (2) from the second object type to the first object type; and
transmitting the converted one or more data objects.

12. (Original) A method according to claim 11, wherein each of the one or more data objects is a Java object.

13. (Original) A method according to claim 11, wherein the first object model is a domain object model and the second object model is an application-specific object model.

14. (Original) A method according to claim 11, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

15. (Original) A method according to claim 11, wherein the one or more data objects are receive from messaging middleware.

16. (Original) A method according to claim 11, wherein the one or more data objects are receive from an application, the application coupled to a communications line.

17. (Currently amended) A system for data object transformation, the system including:

one or more processors;
one or more memories coupled to the one or more processors; and
program instructions stored in the one or more memories, the one or more processors being operable to execute the program instructions, the program instructions including:

receiving a message from a communications line, the message including one or more data objects of a first object type, wherein the message is in a first communications format;

converting the message from the first communications format to a second communications format;

converting the one or more data objects from the first object type to a second object type, wherein the one or more data objects are converted using a first set of one or more transformation classes, each of the one or more transformation classes generated using mapping rules; and

transmitting the ~~converted~~ one or more second object type data objects to an application.

18. (Original) A system according to claim 17, wherein the communications line is messaging middleware, and the first communications format is a middleware-dependent format, and the second communications format is a middleware-independent format.

19. (Original) A system according to claim 17, wherein each of the one or more data objects is a Java object.

20. (Original) A system according to claim 17, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.

21. (Currently amended) A system according to claim 17, wherein the program instructions further include:

- receiving a second message from the application, the second message including one or more data objects of the second data format;

- converting the one or more data objects from the second object type to the first object type, wherein the one or more data objects are converted using a second set of one or more of the transformation classes;

- generating a communications line dependent message, the communications line dependent message including the converted one or more first object type data objects; and

- transmitting the communications line dependent message to the communications line.

22. (Original) A system for data object transformation, the system including:

- a communications line;

- a transformation adapter coupled to the communications line, the transformation adapter including:

 - an assembly/disassembly layer configured to convert messages from a first communications format to a second communications format;

 - a transformation layer configured to convert data objects from a first object type to a second object type using one or more transformation classes; and

 - a method invocation layer;

- a transformation class generator coupled to the transformation adapter, the transformation class generator configured to generate the one or more transformation classes using transformation mapping rules; and

- an application coupled to the transformation adapter, wherein the application transmits data to and receives data from the method invocation layer.

23. (Original) A system according to claim 22, wherein the communications line is messaging middleware.
24. (Original) A system according to claim 22, wherein each of the one or more data objects is a Java object.
25. (Original) A system according to claim 22, wherein the first object type is a domain object model type and the second object type is an application-specific object model type.
26. (Original) An apparatus for data object transformation, the apparatus including:
- means for generating a first object model and a second object model, the first object model including a plurality of data objects of a first object type, and the second object model including a plurality of data objects of a second object type;
 - means for storing the first and second object models;
 - means for generating transformation mapping rules;
 - means for generating a plurality of transformation classes using the first and second object models and the transformation mapping rules;
 - means for receiving a one or more data objects;
 - means for converting the received data objects, using the transformation classes, from the first object type to the second object type; and
 - means for transmitting the converted one or more data objects.